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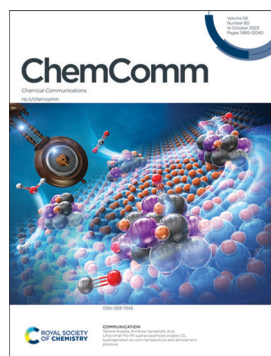
Chemical Communications

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IN THIS ISSUE

ISSN 1359-7345 CODEN CHCOFS 59(80) 11885-12040 (2023)



Cover

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Inside cover

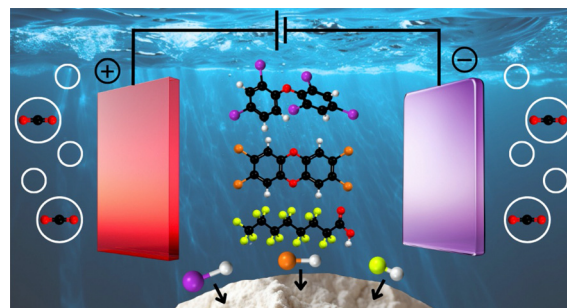
See Astrid M. Müller *et al.*, pp. 11895–11922. Image reproduced by permission of Astrid M. Müller and Madeleine K. Wilsey from *Chem. Commun.*, 2023, 59, 11895.

HIGHLIGHT

11895

Advanced electrocatalytic redox processes for environmental remediation of halogenated organic water pollutants

Madeleine K. Wilsey, Teona Taseska, Ziyi Meng, Wanqing Yu and Astrid M. Müller*

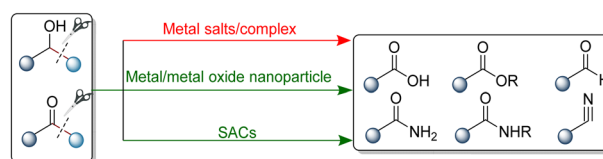


FEATURE ARTICLES

11923

Aerobic oxidative C–C bond cleavage and functionalization for the synthesis of value-added chemicals

Peng Zhou, Ziliang Yuan, Jie He, Tingfeng Fang, Bing Liu* and Zehui Zhang*



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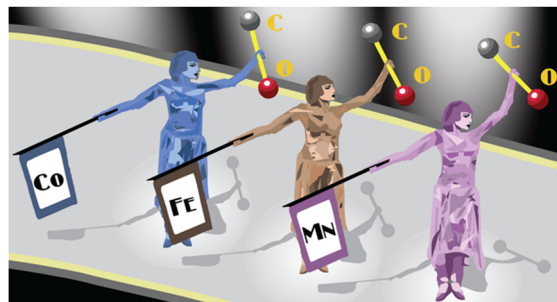


FEATURE ARTICLES

11932

Activation of robust bonds by carbonyl complexes of Mn, Fe and Co

Maxim R. Radzhabov and Neal P. Mankad*

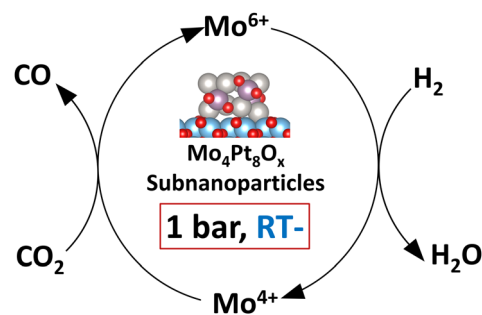


COMMUNICATIONS

11947

Ultra-small Mo–Pt subnanoparticles enable CO₂ hydrogenation at room temperature and atmospheric pressure

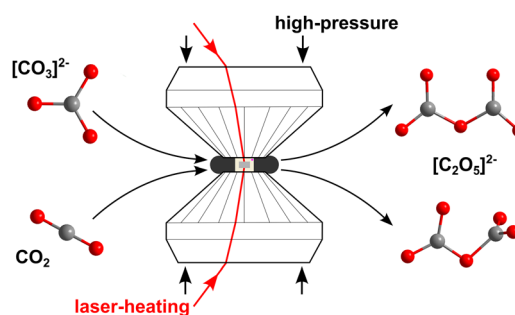
Augie Atqa, Masataka Yoshida, Masanori Wakizaka, Wang-Jae Chun, Akira Oda, Takane Imaoka* and Kimihisa Yamamoto*



11951

Twisted [C₂O₅]²⁻-groups in Ba[C₂O₅] pyrocarbonate

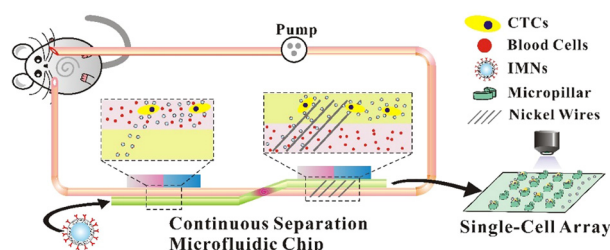
Dominik Spahr,* Lkhamsuren Bayarjargal, Eiken Haussühl, Rita Luchitskaia, Alexandra Friedrich, Victor Milman, Timofey Fedotenko and Björn Winkler



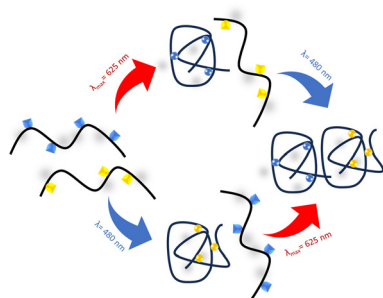
11955

Continuous magnetic separation microfluidic chip for tumor cell *in vivo* detection

Man Tang, Jiao Feng, Hou-Fu Xia, Chun-Miao Xu, Ling-Ling Wu, Min Wu, Shao-Li Hong, Gang Chen* and Zhi-Ling Zhang*



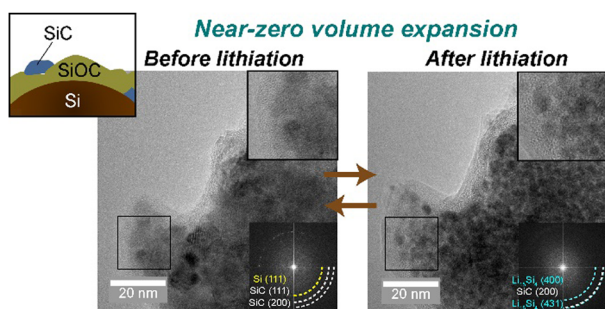
11959



Simultaneously recorded photochemical action plots reveal orthogonal reactivity

Ishrath Mohamed Irshadeen, Vinh X. Truong, Hendrik Frisch* and Christopher Barner-Kowollik*

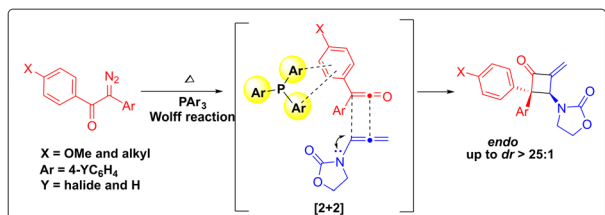
11963



Near zero-strain silicon oxycarbide interphases for stable Li-ion batteries

Su Jeong Yeom, Tae-Ung Wi, Soon-Jae Jung, Myeong Seon Kim, Sang-Chae Jeon and Hyun-Wook Lee*

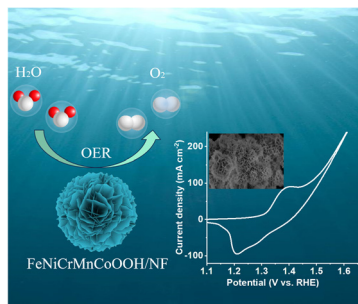
11967



Stereo- and regiocontrol in intermolecular [2+2] cycloadditions between diarylketenes and allenamides to access substituted α -methylenecyclobutanones

Akshay Suresh Kshirsagar, Sayaji Arjun More and Rai-Shung Liu*

11971



Nanoflower-like high-entropy Ni–Fe–Cr–Mn–Co (oxy)hydroxides for oxygen evolution

Mingyuan Shi, Tianmi Tang, Liyuan Xiao, Jingyi Han, Xue Bai, Yuhang Sun, Siyu Chen, Jingru Sun, Yuanyuan Ma* and Jingqi Guan*

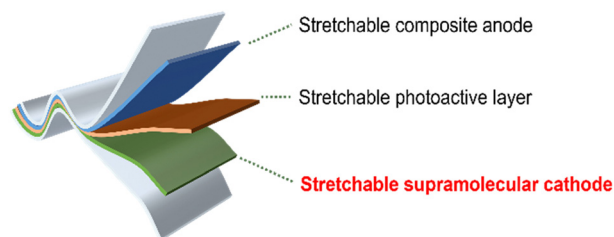


11975

Supramolecular interface decoration on a polymer conductor for an intrinsically stretchable near-infrared photodiode

Fan Chen, Yiming Li, Yan Chen, Yi-Xuan Wang* and Wenping Hu*

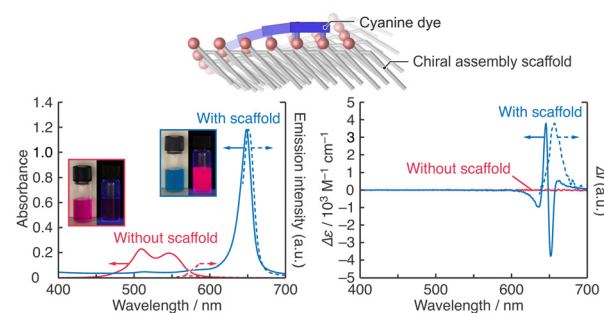
Intrinsically stretchable photodiode



11979

Controlled packing of chiral assembly scaffolds to promote chiral J-aggregation of carbocyanine dyes

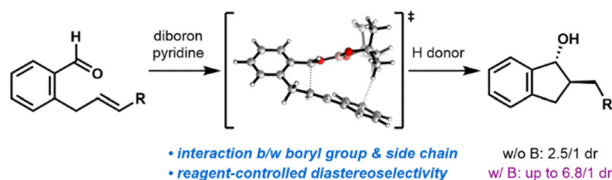
Naoya Ryu,* Yusei Yamamoto, Yutaka Okazaki, Nanami Hano, Yuki Iwamoto, Tomohiro Shirotsaki, Shoji Nagaoka, Reiko Oda, Hiroataka Ihara and Makoto Takafuji



11983

Stereochemical modulation of ketyl radical cyclization enabled by pyridine-boryl radicals: catalytic diastereoselective synthesis of *trans*-2-alkyl-1-indanols

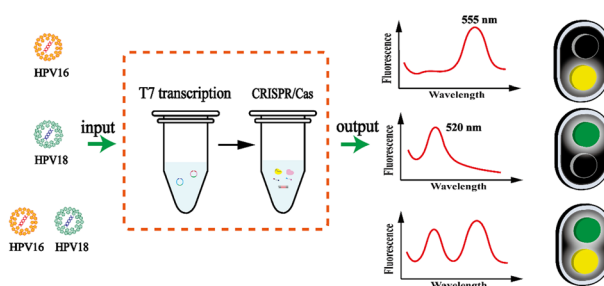
Somi Kim, Junhyuk Jo, Sunggi Lee* and Won-jin Chung*



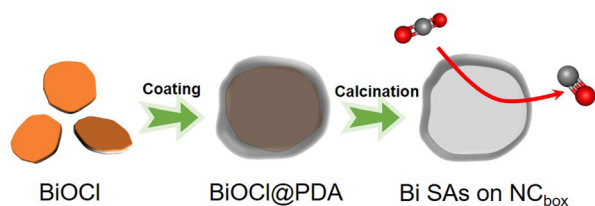
11987

Target-mediated rolling circle transcription coupling with CRISPR/Cas12a-Cas13a for simultaneous detection of HPV16 and HPV18

Shiying Zhou, Shuyu Zhu, Zhen Huang, Jian Chen, Jiawei Li, Mei Yang, Liang Jin,* Danqun Huo* and Changjun Hou*



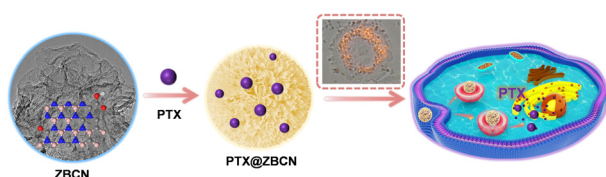
11991



N-doped carbon nanocage-anchored bismuth atoms for efficient CO₂ reduction

Jiayi Li, Lingling Zhang, Shuai Gao, Xingmin Chen, Runjie Wu, Xiao Wang* and Qiang Wang*

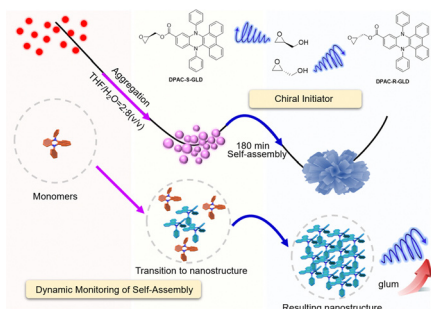
11995



Flower-like porous BCN assembled by nanosheets for paclitaxel delivery

Haiyan Wang, Congling Wang, Yuxian Deng, Yuxin Han, Shuo Xiang, Hanning Xiao and Qunhong Weng*

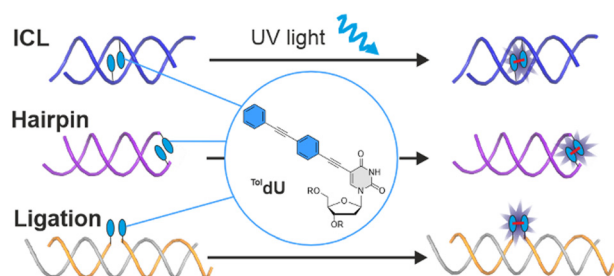
11999



Dynamic monitoring of self-assembly by confining conformational changes of butterfly-motion-based molecules

Xuanying Chen, Jiacheng Chen, Wenyuan Su, Jianhua Su, Qi Zou* and Zhiyun Zhang*

12003



A tolane-modified 5-ethynyluridine as a universal and fluorogenic photochemical DNA crosslinker

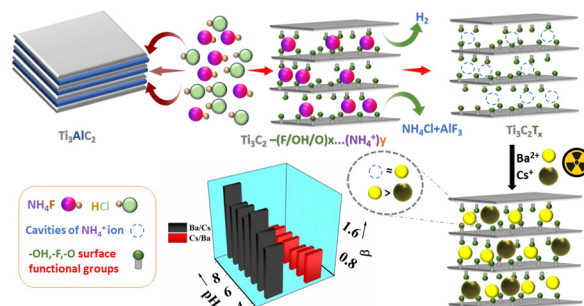
Hermann Neitz and Claudia Höbartner*



12007

Application of MXene for remediation of low-level radioactive aqueous solutions contaminated with ^{133}Ba and ^{137}Cs

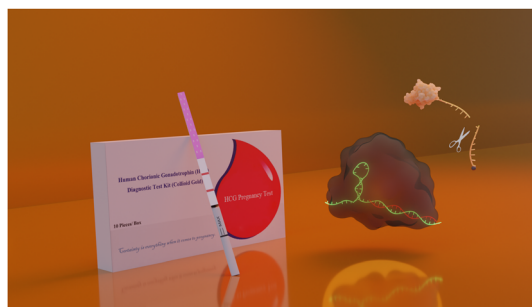
Vipul Vilas Kusumkar, Shalu Atri,* Süleyman İnan, Maros Gregor, Tomas Roch, Hryhorii Makarov, Maria Caplovicova, Michal Galambos, Eva Viglasova, Gustav Plesch and Olivier Monfort*



12011

Rapid and sensitive point-of-care PTS-CRISPR assay for food safety monitoring of aflatoxin B1

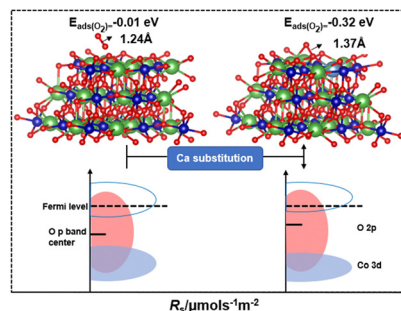
Ziqiang Deng, Jin Zhou, Chaoqun Wang, Jianyu Hu, Rui Liu* and Yi Lv



12015

Ca substitution improves the catalytic activity of perovskite LaCoO_3 toward toluene: comprehension of electronic structure alteration

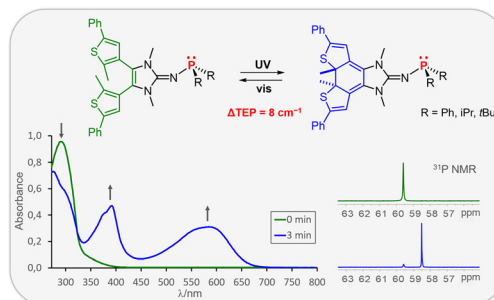
Hanlin Chen, Gaoling Wei, Zijuan You, Xiaoliang Liang,* Peng Liu, Yiping Yang, Fuding Tan, Suhua Wang, Jieqi Xing and Steven L. Suib



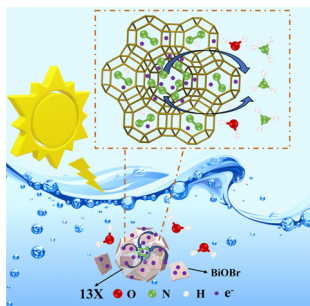
12019

Photoswitchable electron-rich phosphines: using light to modulate the electron-donating ability of phosphines

Florenz Buß, Mowpriya Das, Daniel Janssen-Müller, Alexander Sietmann, Ankita Das, Lukas F. B. Wilm, Matthias Freitag, Michael Seidl, Frank Glorius* and Fabian Dielmann*



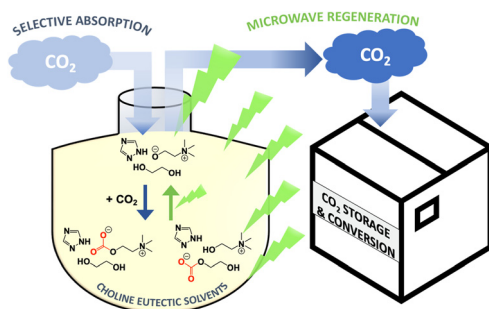
12023



The role of 13X molecular sieves in photocatalytic nitrogen fixation

Jianuan Wen, Wei Cai, Zhicheng Zhang, Qin Zhong and Hongxia Qu*

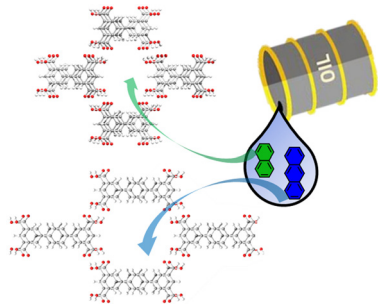
12027



Formation of choline salts and dipolar ions for CO₂ reactive eutectic solvents

Ruth Dikki, Eda Cagli, Drace Penley, Metin Karayilan and Burcu Gurkan*

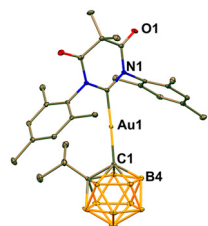
12031



Selective adsorption of polycyclic aromatic hydrocarbons by isostructural hydrogen-bonded organic frameworks

Peng Cui,* Qiang Zhu, Fangfang Zhang, Dongni Liu and Wenshuai Zhu*

12035



Fast and Bright Phosphorescence

Highly phosphorescent carbene–metal–carboranyl complexes of copper(i) and gold(i)

Samuel L. Powley, Charlotte Riley, Hwan-Hee Cho, Nguyen Le Phuoc, Mikko Linnolahti,* Neil Greenham* and Alexander S. Romanov*

